



UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office

Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO. <i>AK</i>
-----------------	-------------	----------------------	-------------------------------

EXAMINER

ART UNIT	PAPER NUMBER
----------	--------------

DATE MAILED:

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action SummaryApplication No.
09/641,795Applicant(s)
ZavislanExaminer
Hoa Q. PhamGroup Art Unit
2877☒ Responsive to communication(s) filed on Aug 18, 2000☐ This action is **FINAL**.☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire three month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims☒ Claim(s) 29-42 is/are pending in the application.

Of the above, claim(s) _____ is/are withdrawn from consideration.

☐ Claim(s) _____ is/are allowed.☒ Claim(s) 29-42 is/are rejected.☐ Claim(s) _____ is/are objected to.☐ Claims _____ are subject to restriction or election requirement.**Application Papers**☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.☐ The drawing(s) filed on _____ is/are objected to by the Examiner.☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.☐ The specification is objected to by the Examiner.☐ The oath or declaration is objected to by the Examiner.**Priority under 35 U.S.C. § 119**☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been
☐ received.☐ received in Application No. (Series Code/Serial Number) _____.☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).**Attachment(s)**☒ Notice of References Cited, PTO-892☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). 3☐ Interview Summary, PTO-413☐ Notice of Draftsperson's Patent Drawing Review, PTO-948☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

Art Unit: 2877

DETAILED ACTION

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "beams are overlapping in the medium" in claims 30 and 35 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Specification

2. The disclosure is objected to because of the following informalities: page 6 last line, the "bean 56" should be changed to --beam 56--.

Appropriate correction is required.

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

The specification does not set forth what type of elements are used in the invention so that the beams are overlapping in the medium.

4. Claims 30 and 35 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Art Unit: 2877

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(c) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

6. Claims 29-38 are rejected under 35 U.S.C. 102(e) as being anticipated by Barenboim et al. (5,699,160).

Regarding claims 29, 31, 32, 33, 34, 36-38; Barenboim et al (of record) teaches an optical apparatus for inspecting laser texture comprises: a polarization separator (34) and a polarization retarder (30) which are disposed successively in the path of the light received by the medium (82) receives into light which is polarized generally orthogonally and is incident on the medium at spots spaced laterally from each other. (See figure 1 of Barenboim et al).

Regarding claims 30 and 35, Barenboim et al teaches that the polarization separator (34) is a Wollaston prism which is the same as the present invention used, thus it is inherent that the beams are overlapping in the medium.

Art Unit: 2877

7. Claims 29-38 are rejected under 35 U.S.C. 102(e) as being anticipated by Bou-Ghannam et al (5,710,631).

Regarding claims 29, 31, 32, 33, 34, 36-38; Bou-Ghannam et al (of record) teaches an interferometer comprises: a polarization separator (18) and a polarization retarder (70) which are disposed successively in the path of the light received by the medium (16) receives into light which is polarized generally orthogonally and is incident on the medium at spots spaced laterally from each other. (See figure 1).

Regarding claims 30 and 35, Bou-Ghannam et al teaches that the polarization separator (18) is a Wollaston prism (column 9 line 37) which is the same as the present invention used, thus it is inherent that the beams are overlapping in the medium.

8. Claims 29-38 are rejected under 35 U.S.C. 102(e) as being anticipated by Ooki et al (5,764,363).

Regarding claims 29, 31-34 and 36-38; Ooki et al discloses an apparatus for observing a surface using polarized light which comprises: a polarization separator (36) and a polarization retarder (40) which are disposed successively in the path of the light received by the medium (38) receives into light which is polarized generally orthogonally and is incident on the medium at spots spaced laterally from each other (see figures 7-16).

Art Unit: 2877

Regarding claims 30 and 35, the polarization separator (5,36,116) is a Nomarski prism (see figures 1,7,23) which is the same as the present invention used, thus it is inherent that the beams are overlapping in the medium.

9. Claims 29-38 are rejected under 35 U.S.C. 102(b) as being anticipated by Smith (3,958,884).

Regarding claims 29, 31-34, and 36-38; Smith (of record) discloses an interferometric apparatus comprising: a polarization separator (9, 24, 34, 35, 49) and a polarization retarder (10, 25, 36, 52), which are disposed successively in the path of light received by a medium (13), the light received by the medium passing from the separator through the retarder and then to the medium, for processing the light the medium receives into a pair of light beams (a,b), the light in each of which beams is polarized generally orthogonally and is incident on the section at spots spaced laterally from each other while the beams are overlapping in the medium at the sites, and a detector responsive to return light from both beams thereby providing for interference of light returned from the sites and enabling construction of the image in response to a parameter of the return light. See figures 4-7.

Regarding claims 30 and 35; Smith use the same prism as the present invention, thus it is inherent that the beams are overlapping in the medium.

Art Unit: 2877

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 39-42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ooki et al, Smith, Bou-Ghannam et al, or Barenboim et al (all of record).

Ooki et al, Smith, Bou-Ghannam et al, and Barenboim et al do not teach the use of reference arm and a sample arm; however, the examiner take the Official notice that such a feature is well known in the field of interferometry. Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to include the system of Ooki et al, Smith, Bou-Ghannam et al, or Barenboim et al into such interferometry system for the purpose of detecting defects in a test surface, or for investigating surface topography.

Double Patenting

12. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321© may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground

Art Unit: 2877

provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

13. Claims 29-42 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-31 of U.S. Patent No. 6,134,009 and claims 1-30 of U.S. Patent No. 6,134,010. Although the conflicting claims are not identical, they are not patentably distinct from each other because the present claims are broader than the patent's claims and all the limitations of present invention are recited in the patent's claims.

14. Claims 29-42 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 30-43 of copending Application No. 09/641,798. Although the conflicting claims are not identical, they are not patentably distinct from each other because the difference between the present claimed invention and the claims of copending application is that the light beams are directed along an imaging plane while the copending claims teach that the light beams are directed in the medium along an optical axis; however, such a feature is obvious to one having ordinary skill in the art.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

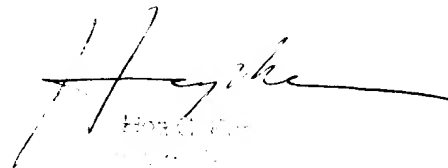
Art Unit: 2877

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to examiner Hoa Pham whose telephone number is (703) 308-4808. The fax phone number for the organization where this application or proceeding is assigned is (703) 308-7722 or 7724.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

Pham/hp

February 21, 2001



Handwritten signature of Hoa Pham, with the name "Hoa Pham" printed below it.